

Abstract

The present invention relates to nucleic acid sequences from the bacterium, *Myxococcus xanthus* and, in particular, to genomic DNA sequences. The invention encompasses nucleic acid molecules present in non-coding regions as well as nucleic acid molecules that encode proteins and fragments of proteins. In addition, proteins and fragments of proteins so encoded and antibodies capable of binding the proteins are encompassed by the present invention. The invention also encompasses oligonucleotides including primers, *e.g.* useful for amplifying nucleic acid molecules, and collections of nucleic acid molecules and oligonucleotides, *e.g.* in microarrays. The invention also provides constructs and transgenic cells and organisms comprising nucleic acid molecules of the invention. The invention also relates to methods of using the disclosed nucleic acid molecules, oligonucleotides, proteins, fragments of proteins, and antibodies, for example, for gene identification and analysis, and preparation of constructs and transgenic cells and organisms.